

From the INTERNATIONAL SEARCHING AUTHORITY

**PCT**

To:

HOWREY SIMON ARNOLD & WHITE  
Attn. Clarkson, Paul  
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UNITED KINGDOM

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL SEARCH REPORT AND  
THE WRITTEN OPINION OF THE INTERNATIONAL  
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

07054	Date of mailing (day/month/year) 07/02/2005
Applicant's or agent's file reference 07045.0006.00PC00	<b>FOR FURTHER ACTION</b> See paragraphs 1 and 4 below
International application No. PCT/EP2004/010732	International filing date (day/month/year) 22/09/2004
Applicant  TEN CATE ADVANCED TEXTILES B.V.	

1. ☒ The applicant is hereby notified that the International search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

**Filing of amendments and statement under Article 19:**

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

**When?** The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

**Where?** Directly to the International Bureau of WIPO, 34 chemin des Colombettes  
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no International search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.
3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:
- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

**4. Reminders**

Shortly after the expiration of **18 months** from the priority date, the International application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the International application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for International publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until **30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the International Searching Authority



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Authorized officer

Sophie Ruciak-Guisan

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>07045.0006.00PC00</b>	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, Item 5 below.	
International application No. <b>PCT/EP2004/010732</b>	International filing date (day/month/year) <b>22/09/2004</b>	(Earliest) Priority Date (day/month/year) <b>22/09/2003</b>
Applicant <b>TEN CATE ADVANCED TEXTILES B.V.</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant.  
☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☐ the text is approved as submitted by the applicant.  
☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

- a. the figure of the drawings to be published with the abstract is Figure No. 2

- ☒ as suggested by the applicant.  
☐ as selected by this Authority, because the applicant failed to suggest a figure.  
☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2004/010732

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

The invention provides a method for digitally upgrading a textile article(T) using a textile upgrading device(1), the device(1) comprising a number of nozzles(12) for applying one or more substances to the textile(T), in addition to transport means(2) for transporting the textile(T) along the nozzles(12), wherein the nozzles(12) are ordered in a number of successively placed rows(4,5,6,7) extending transversely of the transporting direction of the textile article(T), the method comprising the steps of: guiding the textile article(T) along a first row(4) of nozzles(12); performing with the first row(4) of nozzles(12) one of the operations of painting, coating or finishing of the textile article(T) carried therealong; subsequently guiding the textile(T) along a second row(5) of nozzles(12); and performing with the second row(5) of nozzles(12) another of the operations of painting, coating or finishing of the textile article(T) carried therealong.

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 D06B11/00 B41J11/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 D06B B41J

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)  
EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 120 560 A (S.C. MILLER ET AL) 19 September 2000 (2000-09-19)  column 3, line 32 - line 64 column 4, line 12 - line 50 -----	1,7, 9-12,18, 20,23,24
X	US 2003/081094 A1 (M.A. VAN VEEN; J.E. DORMAN) 1 May 2003 (2003-05-01)  paragraphs '0002!, '0016! - '0018!, '0030!, '0034!, '0037! - '0039!, '0049! - '0054! ----- -/--	1,7,8, 10-14, 18,20, 23,24

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the International filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*G\* document member of the same patent family

Date of the actual completion of the international search

27 January 2005

Date of mailing of the international search report

07/02/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
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Authorized officer

Goodall, C

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 580 304 A (D.L. OTTING; B.J. OTTING) 8 April 1986 (1986-04-08)  column 3, line 4 - column 4, line 18 -----	1,7, 10-12, 18,20, 23,24
A	GB 2 187 419 A (DAWSON ELLIS LTD.) 9 September 1987 (1987-09-09)  page 1, line 104 - page 2, line 12 page 2, line 61 - line 72 page 2, line 91 - line 95 page 3, line 32 - line 81 page 3, line 95 - page 4, line 6 -----	1,7,10, 12-14, 18-20, 23,24
A	US 4 791 434 A (L.J. WILLS) 13 December 1988 (1988-12-13) claim 1; figure 4 -----	5
A	US 4 501 038 A (B.J. OTTING) 26 February 1985 (1985-02-26) -----	

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/010732

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6120560	A	19-09-2000	NONE	
US 2003081094	A1	01-05-2003	NONE	
US 4580304	A	08-04-1986	BE 902399 A1 GB 2158773 A ,B BE 901864 A1 GB 2154907 A US 4578836 A	02-09-1985 20-11-1985 01-07-1985 18-09-1985 01-04-1986
GB 2187419	A	09-09-1987	EP 0306568 A1	15-03-1989
US 4791434	A	13-12-1988	AT 54103 T WO 8602959 A1 DE 3578405 D1 EP 0202268 A1 HU 40474 A2 JP 62501301 T	15-07-1990 22-05-1986 02-08-1990 26-11-1986 28-12-1986 21-05-1987
US 4501038	A	26-02-1985	US 4485508 A	04-12-1984

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

# PCT

To:

see form PCT/ISA220

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/EP2004/010732

International filing date (day/month/year)  
22.09.2004

Priority date (day/month/year)  
22.09.2003

International Patent Classification (IPC) or both national classification and IPC  
D06B11/00, B41J11/00

Applicant  
TEN CATE ADVANCED TEXTILES B.V.

### 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA220.

### 3. For further details, see notes to Form PCT/ISA220.

Name and mailing address of the ISA:



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WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITYInternational application No.  
PCT/EP2004/010732

IAP20 Rec'd PCT/PTO 15 MAR 2006

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Box No. I Basis of the opinion

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:



**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/EP2004/010732

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

Novelty (N)	Yes: Claims	2-6,15-17,19,21,22
	No: Claims	1,7-14,18,20,23,24
Inventive step (IS)	Yes: Claims	16
	No: Claims	1-15,17-24
Industrial applicability (IA)	Yes: Claims	1-24
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

**10/571995**  
International application No.

PCT/EP2004/010732

**IAP20 Rec'd PCT/PTO 15 MAR 2006**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

1. Reference is made to the following documents:

D1: US 6 120 560 A  
D2: US 2003/081094 A  
D3: US 4 580 304 A  
D4: GB 2 187 419 A  
D5: US 4 791 434 A

2. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of independent claims 1, 23 and 24 is not new in the sense of Article 33(2) PCT.

- 2.1 The document D1 discloses (the references in parentheses applying to this document) a method for digitally upgrading a substrate (5) using an upgrading device (12,20), the device comprising a number of nozzles for applying one or more substances to the textile (5), in addition to a conveyor (34,38,52) for transporting the textile (5) along the nozzles, wherein the nozzles are ordered in a number of successively placed rows (12,54) extending transversely of the transporting direction of the textile article (5), the method comprising the steps of:
- guiding the textile article (5) along a first row (12) of nozzles;
  - performing with the first row (12) of nozzles the operation of painting of the textile article (5) carried therealong;
  - subsequently guiding the textile (5) along a second row (54) of nozzles; and
  - performing with the second row (54) of nozzles the operation of printing of the textile article (5) carried therealong.

The subject-matter of claim 1 is therefore not new (Article 33(2) PCT).

- 2.2 The document D1 discloses (the references in parentheses applying to this document) a device (12,20) for upgrading a textile article (5), the device comprising a number of stationary nozzles for applying one or more substances to the textile (5), a

conveyor (34,38,52) for transporting the textile (5) along the nozzles, wherein the nozzles are ordered in a number of successively placed rows (12,54) extending transversely of the transporting direction of the textile article (5).

The subject-matter of claim 23 is therefore not new (Article 33(2) PCT).

- 2.3 The document D1 discloses a textile article produced according to the method of claim 1 and therefore the subject-matter of claim 24 is not new (Article 33(2) PCT).
- 2.4 The subject-matter of independent claims 1, 23 and 24 is also deprived of novelty by the disclosure of document D2 and by the disclosure of document D3.
3. Dependent claims 2-15 and 17-22 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step for the reasons given below.
  - 3.1 The features of dependent claims 7,9-12,18 and 20 are disclosed in combination with the features of claim 1 in document D1.
  - 3.2 The features of dependent claims 7,8,10-14,18 and 20 are disclosed in combination with the features of claim 1 in document D2.
  - 3.3 The features of dependent claims 7,10-12,18 and 20 are disclosed in combination with the features of claim 1 in document D3.
  - 3.4 The features of dependent claims 5 and 19 have already been employed for the same purpose in a similar process in documents D5 and D4 respectively. It would be obvious to the person skilled in the art, namely when the same result is to be achieved, to apply these features with corresponding effect to a process according to document D1, thereby arriving at a process according to claims 5 or 19.
  - 3.5 The features of dependent claims 2-4,6,15,17,21 and 22 relate in each case to one of several straightforward possibilities from which the skilled person would select, in accordance with circumstances, without the exercise of inventive skill, in order to

solve the problem posed.

4. Dependent claim 16 contains features which, in combination with claim 1, are neither known from, nor rendered obvious by, the available prior art. Claim 16 therefore meets the requirements of the PCT with respect to novelty and inventive step.